Site: Chevron-Chem Co
ID# MOD006272355
Grank: 7.4
Other:
N/D
SW

MISSOURI DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE PROGRAM
SUPERFUND SECTION

ANNUAL REGISTRY SITE REMEDIAL ACTION UPDATE

1. SITE NAME AND LOCATION/CLASSIFICATION

___STATE LEAD ___EPA LEAD	CURRENT SITE CLASSIFICATION ___CLASS 1 ___CLASS 2 ___CLASS 3 ✓CLASS 4 ___CLASS 5	
SITE NAME Chevron Chemical Company	ADDRESS OR LEGAL Maryland Heights, Mo	COUNTY St. Louis County

2. REMEDIAL ACTION UPDATE (Please describe remedial action progress completed during the last fiscal year) Check one of the following:

____Comments included below.

____Comments attached/edited and revised last year's annual report write-up.

__✓__No comments/no remedial actions implemented in past fiscal year.

COMMENTS

07L4

3.0

QUOD

3. CLASSIFICATION RECOMMENDATION (PROJECT MANAGER'S RECOMMENDED CLASSIFICATION BASED ON CURRENT CONDITION OF SITE)

CHECK ONE OF THE FOLLOWING:

✓ STAY THE SAME ___CLASS 1 ___CLASS 2 ___CLASS 3 ___CLASS 4 ___CLASS 5

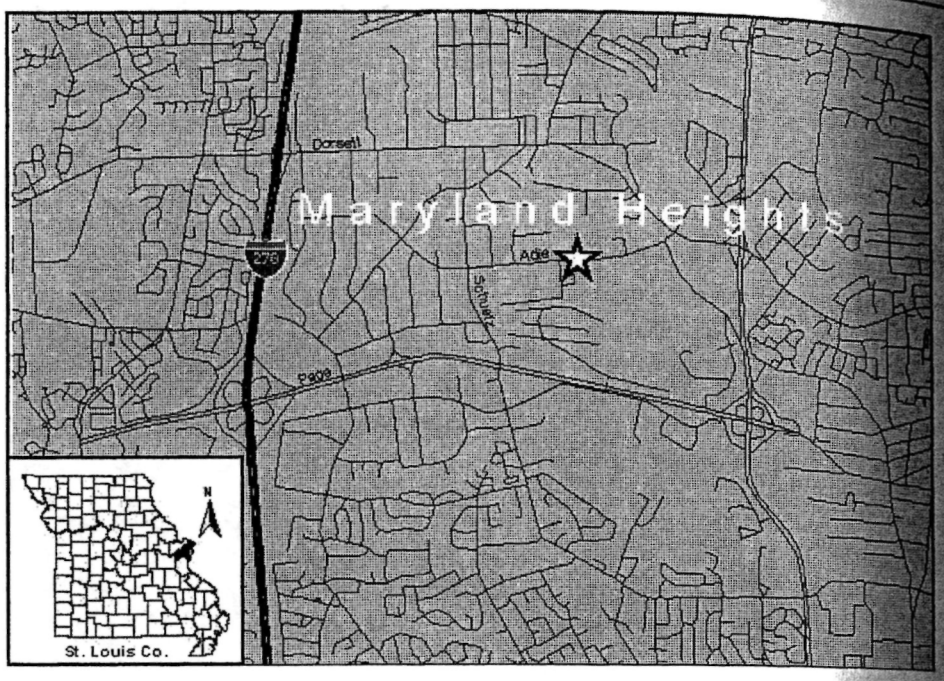
4. PREPARED BY

PROJECT MANAGER/COORDINATOR	___ DNR/SUPERFUND ___ DNR/RCRA ✓ U.S. EPA/SUPERFUND ___ U.S. EPA/RCRA	DATE (MO/DAY/YR)
Catherine Barrett		09-05-21

5. DEED NOTICE (TO BE FILLED IN BY PLANNING AND PRE-REMEDIAL UNIT)

DATE DEED NOTICE RECORDED	BOOK	PAGE
RECORDER'S OFFICE	LOCATION	

Chevron Chemical Company



Site Name: Chevron Chemical Company

Classification: Class IV

Address: 2497 Adie Road, Maryland Heights, St. Louis County, Missouri, SW 1/4, SE 1/4, Sec. 23, T. 46N, R. 5E, Creve Coeur Quadrangle

Present Property Owner: Chevron Chemical Company

Lead Agency: EPA

Waste Type: Pesticides and Arsenic

Quantity: Not determined

Site Description:

The site is a former pesticide/fertilizer formulation plant that operated for over 30 years. The plant experienced spills and leaks that may have contributed to contamination at the site. The site is located in a light industrial area in the Fee Fee Creek watershed. Fire debris contaminated with pesticides was buried on-site in unlined pits in the 1950's. This area is currently located under buildings and is not accessible. Additionally, up to 4,800 pounds of the fungicide Maneb were buried on-site in 1974. A change of use request was approved for use of the facil warehouse space for several businesses. These businesses will not impact or influe current site conditions. The entire proper listed on the *Registry*.

This site is located in a commercial and industrial area, bordering residential area with 3,000 people in a 0.5 mile radius. It publicly traveled or considered a public u area.

Environmental Problems and Areas of Concern Related to Site:

Pesticides have been detected in the soil shallow groundwater on the plant site. In 1981, the level of groundwater contamina was as high as 2,300 parts per billion (pp 2,4-D. Groundwater contamination has found at the perimeter of the hazardous site, in the downgradient direction of the groundwater flow. Five private wells hav been identified as drawing from the aqui concern within a three-mile radius. The primary use of groundwater is to process industrial water. The nearest downslope surface water is Fee Fee Creek, which is occasionally for trapping.

Remedial Actions at Site:

The Chevron Chemical Company submitted soil sampling data, as well as groundwater monitoring data, to the U.S. Environmental Protection Agency (EPA). The company plans to continue quarterly groundwater monitoring at the site. Field work at the site includes 23 on-site monitoring wells, five off-site monitoring wells, six off-site soil borings at the suspected arsenic spill site, a surface geophysical survey, and 56 on-site soil borings. An abandoned sewer system at the facility was pumped of its contents in February 1987. Sampling of the runoff collected in the sewer indicated some pesticide and arsenic contamination. Surface water samples collected in March 1987 did not indicate significant levels of contamination. A sample collected from a seep below Building D indicated low levels of arsenic and pesticide contamination.

A supplemental site investigation was conducted by Chevron in 1989 that included on- and off-site soil sampling. This sampling identified areas of surface soil contamination showing high levels of pesticides and insecticides. Chevron capped/paved the off-site contaminated loading area, and installed an additional off-site deep monitoring well to monitor contaminant migration. Previous remedial actions have included paving and capping contaminated on-site soils to reduce migration of contaminants into groundwater.

During 1995, the EPA and the Missouri Department of Natural Resources (DNR) concluded that groundwater monitoring should be conducted annually for a period of five years by the Potentially Responsible Party. If, at the end of five years, no increase in off-site contaminants has occurred, groundwater monitoring may be discontinued.

General Geologic and Hydrologic Setting:

The site is underlain by 20 to 30 feet of loess, or wind-deposited, clayey silt, over Pennsylvanian shale or residual clay. Below the shale or clay, at a depth of about 30 to 70 feet, there is a limestone unit that is part of the uppermost aquifer at the site.

The confining unit at the base of this aquifer is the Maquoketa Shale, at a depth of several hundred feet. Water from deeper horizons of the limestone aquifer may be too saline to be considered potable, but the shallow part of the bedrock aquifer probably produces good-quality water; however, yields may be low. Groundwater is not used widely in this area, due to the presence of public surface water supplies.

Perched water is present in the loess, but yields are so low that this is not considered an aquifer. The perched groundwater has been affected by contaminants at the site. Due to the presence of low-permeability material beneath the loess, the water within the loess is expected to discharge to the surface or to buried sewer lines downgradient of the site.

Public Drinking Water Advisory:

This area is served by St. Louis County Water Company, which utilizes the Missouri and Meramec Rivers as sources. Some area residents may have private wells. This site poses no threat to public water supplies.

Health Assessment:

Investigations indicated the presence of soil contamination both on- and off-site; however, the off-site contamination was found only in the area adjacent to the former arsenic off-loading dock. Since these areas have been capped and paved, potential for human exposure is limited. Also, the potential for human contact with the contaminated soil on-site is low since the site is fenced, secured, and covered with buildings. For these same reasons, the potential for exposure from airborne contaminants is expected to be low. The potential for off-site migration of contaminants through surface water runoff is also expected to be low.

The contaminants that were detected in groundwater either regularly or occasionally included arsenic, lindane, aldrin, dieldrin, xylenes, and the chlorophenoxy acids. Exposure to the public from groundwater contamination is not expected because: (1) the only private wells in the area are one-half mile away and upgradient from the site; and (2) everyone living downgradient for a

distance of at least five miles is provided with public drinking water. A recent inspection of the site by DNR personnel indicated that the site has been leased to several companies whose business practices do not disturb soil or the parking area/entrance driveway.

Based on available information, the Missouri Department of Health feels that the potential for exposure to the general public and to workers on the site is low under present conditions. However, if conditions at the s change in the future, allowing public accessibility to the contaminants, exposure possible. Adverse health effects could res individuals are exposed to soil and water a concentrations above recommended levels

For information regarding health related issues, please contact the Missouri Department of Health, P.O. Box 570, Jefferson City, MO 65102, (573) 751-6404

CONTAMINANT	*MDOH RECOMMENDED SAFE LEVEL (PARTS PER MILLION)*		*POSSIBLE HEALTH EFFECTS*
	WATER	*SOIL*	
Aldrin	ND	.31	Probable human carcinogen; GI and CNS effects; headache, dizziness.
Arsenic	.05	100	Known human carcinogen; GI disturbances; peripheral neuritis; skin and damage.
2-4-D	.07	1,000	Weakness; stupor; hyporeflexia; muscle twitching; convulsions; dermatitis.
Dieldrin	ND	.26	Probable human carcinogen; GI and CNS effects; headache, dizziness.
Lindane	.0002	2	Possible human carcinogen; eye and skin irritant; CNS disturbances.
Xylenes, total	10	200,000	Irritant to mucous membranes; CNS depressant.
ND = NO DATA AVAILABLE OR INSUFFICIENT DATA.			